

Claims

1. A method of improving current density for a carbon nanotube(CNT) emitter source, said method comprising the steps of:

5 forming a CNT layer by screen-printing a CNT paste through a patterned mesh onto substrate, wherein a plurality of conductive pattern is formed thereon so as to form emitter pixel array;  
10 performing a soft bake process to said substrate;  
performing a sintering process; and  
15 performing a taping process.

2. The method according to claim 1, wherein step of performing a taping process comprises the steps of

forming a adhesive film on said substrate; and  
15 pulling said adhesive film up and striping away so as to poor bonding of CNT layer.

3. The method according to claim 1, after soft bake step further comprising performing a taping process to further increase said current density in  
20 the same electric field intensity.

4. The method according to claim 2, wherein step of said forming an adhesive film on said substrate is performed by laminator.

5. The method according to claim 2, wherein step of said forming a adhesive film on said substrate is performed by printing a film and then  
25 scraping said film.

6. The method according to claim 2, wherein step of said forming a adhesive film on said substrate is performed by attaching said adhesive film manually on said substrate and then rubbing said adhesive film.

5 7. The method according to claim 2, wherein said adhesive film to remove said organic is through physical or electric static attracting process.

8. The method according to claim 2, wherein said adhesive film comprises a plastic film with adherent material thereon.

9. The method according to claim 2, wherein said adhesive film comprises a tape without adherent material but can attach on said CNT layer by electric static force.

10. The method according to claim 1, wherein said step of performing said soft bake process is done at a temperature of about 50-200 °C.

11. The method according to claim 1, wherein said step of performing said sintering process is done at a temperature of about 350-550 °C.